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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,556	11/13/2003	Jeffrey E. Stahmann	279.715US1	7958
21186	7590	06/12/2006	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			BERTRAM, ERIC D	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/713,556	Applicant(s) STAHMANN ET AL.	
	Examiner Eric D. Bertram	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13 and 16-24 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/4/05, 7/5/05, 12/16/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 09/316,515, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. After reviewing the previously filed application, the Examiner could find no reference or discussion of adjusting a ventricular escape interval. Therefore, claims 1-20 are not afforded the priority date of this application. The first disclosure of this subject matter appears in Application No. 09/748,796, and, as a result, claims 1-20 have a priority date of 12/26/2000.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 5/4/05, 7/5/05, and 12/16/05 were filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Peterson et al. (US 5,893,882, hereinafter Peterson). Peterson discloses a method and apparatus for the diagnosis and treatment of cardiac arrhythmias. Peterson discloses sensing atrial depolarizations using electrodes 17 and 21, as well as sensing ventricular depolarizations and pacing the ventricle through electrodes 24 and 26 (Col. 3, lines 44-61). The ventricle is initially paced in accordance with a primary pacing mode such as DDD, DDDR, VDD or VDDR (Col. 1, lines 60-65). However, upon detection of an atrial tachyarrhythmia, the pacemaker switches to an atrial fibrillation pacing mode and applies ventricular pacing to resynchronize the ventricular rate (Col. 29, lines 22-25). In

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addition, the ventricular escape interval is adjusted as well to help regularize the ventricular beat rate (Col. 29, lines 41-46).

5. Regarding claim 2, Peterson discloses that the ventricular escape interval is based on stored data in the memory as well as the intrinsic rate of R-waves and P-waves (Col. 5, lines 50-60).

6. Regarding claim 3, an increase or decrease in the ventricular escape interval will, at some point, inherently be done after a ventricular sense occurred and after a ventricular pace had been delivered.

7. Claims 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Peterson. The rejections presented above in regard to claims 1 and 11 apply to claims 21 and 23 as well.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 6-10, 16-20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of Mower (US 4,928,688). Peterson, as described above, discloses the applicant's basic invention, including applying pulses to resynchronize the pacing of the ventricles. Peterson is silent, however, as to if this is accomplished using biventricular pacing with a selected biventricular offset interval. Attention is directed to the secondary reference of Mower, which discloses a biventricular pacing system that applies pulses with a selected biventricular offset interval of zero (see Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Peterson by using a biventricular pacing system in order to improve the hemodynamic function of the heart.

12. Regarding claims 9 and 19, it is the Examiner's position that ventricular resynchronization in a primary pacing mode will inherently have a different rate than ventricular resynchronization in an atrial fibrillation mode, since, for example during a

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tachyarrhythmia, the heart is intrinsically beating much faster during the atrial fibrillation mode.

13. Regarding claims 7 and 17, Peterson discloses that the ventricular escape interval is based on stored data in the memory as well as the intrinsic rate of R-waves and P-waves (Col. 5, lines 50-60). Furthermore, an increase or decrease in the ventricular escape interval will, at some point, inherently be done after a ventricular sense occurred and after a ventricular pace had been delivered.

14. Regarding claim 8 and 18, Peterson discloses that the pacemaker normally operates in an atrial synchronized pacing mode, but, upon switching to the atrial fibrillation mode, the pacing mode is non-atrial synchronized (see Abstract).

15. Regarding claims 10 and 20, Peterson discloses that the primary pacing mode is a single ventricle pacing mode (see figure 1), and does not refer to ventricular resynchronization pacing in this mode.

Allowable Subject Matter

16. Claims 4, 5, 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Igel et al. (US 6,434,424), Sun et al. (US 5,730,142), and Berkovits (US 4,932,406) all disclose mode-switching pacemakers for applying pacing following detection of a tachycardia.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D. Bertram whose telephone number is 571-272-3446. The examiner can normally be reached on Monday-Thursday and every other Friday from 9-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Robert E. Pezzuto
Supervisory Patent Examiner
Art Unit 3766

Eric D. Bertram
Examiner
Art Unit 3766

EDB